

# Australian Entomological Magazine

Aust. ent. Mag.

Volume 12, Part 5

August, 1985

30 SEP 1985

## NOTES ON THE BIOLOGY AND DISTRIBUTION OF SOME QUEENSLAND BUTTERFLIES

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### Abstract

New and interesting distribution records are detailed for several species of Lycaenidae and Hesperiidae and two species of Satyrinae. A new food plant, *Faradaya splendida* F. Muell. (Verbenaceae) is recorded for the lycaenid *Hypochrysops miskini* (Waterhouse) and communal association between the larvae and pupae of this butterfly and those of the butterfly *Pseudodipsas eone iole* Waterhouse and Lyell is noted.

### Introduction

I record below a number of new or interesting localities and some biological notes for several Queensland butterfly species belonging to the Hesperiidae, Satyrinae and Lycaenidae. All specimens referred to are in the author's collection, unless otherwise stated.

### Hesperiidae

#### *Hesperilla sarnia* Atkins

G. Wood and I took specimens of this species on the summit of Walsh's Pyramid, near Gordonvale, Queensland, during November, 1982 and November, 1983. This locality extends the known distribution of the species further north from the Paluma district (Johnson and Valentine 1983).

#### *Trapezites symmomus sombra* Waterhouse

I collected several specimens and observed others on and near the summit of Walsh's Pyramid, near Gordonvale, Queensland, during November, 1983. It is interesting to find this species in a coastal district (although at altitude) and isolated from the Atherton Tableland area.

*Netrocoryne repanda expansa* Waterhouse

Many specimens have been bred by both G. Wood and myself from numerous localities both on the Atherton Tableland and in the coastal district between Mossman and Innisfail, from September to January. The coastal records are of interest as the species is considered to be found principally at an altitude on the Atherton Tableland. The species has also been recorded from Cooktown and Coen (Common and Waterhouse 1981).

We have also taken specimens at Iron Range during September and October, 1982. On the Atherton Tableland, and in the Mossman/Innisfail district, the principal food plant is *Neolitsea* sp.

*Chaetocneme porphyropis* (Meyrick and Lower)

Specimens have been bred by G. Wood and the author from many localities both in coastal districts from near Daintree to Innisfail and on the Atherton Tableland from near Julatten to the Herberton district and near Ravenshoe. Wood (1984) lists three foodplants; I have also found larvae feeding on camphor laurel *Cinnamomum camphora* (Lauraceae), at Lake Eacham.

## Nymphalidae

## Satyrinae

*Heteronympha penelope penelope* Waterhouse

I took females of this species 10 km north of Tannymorel, southern Queensland, on 6 April, 1980. Specimens have been taken in the same district by S. J. Johnson (pers. comm.). These records extend the known distribution further north from Stonehenge and Ebor in New South Wales.

*Hypocysta euphemia* Westwood

A series of this species was collected during February, 1982, 10 km north of Tannymorel, southern Queensland. This extends the known distribution further north from the Stanthorpe district.

## Lycaenidae

*Hypochrysops miskini* (Waterhouse)

The only recorded food plant of *H. miskini* is *Smilax australis* (Smilacaceae) (Common and Waterhouse 1981). Larvae of *H. miskini* and of *Pseudodipsas cephenes* Hewitson are recorded as having been found together in the same situations and attended by the same species of ant, *Iridomyrmex gilberti* (Common and Waterhouse 1981).

During October and November, 1981, larvae and pupae of *H. miskini* and *P. eone iole* Waterhouse and Lyell were found together on and near the food plant *Faradaya splendida* (Verbenaceae). The food plant was growing adjacent to a watercourse in a rainforest area, 20 km SSW of Kuranda, Queensland. The ant, *Iridomyrmex gilberti* was in obvious attendance of

larvae and pupae of both species, and were often a good guide to the location of larvae and pupae, due to their concentrated activity in the immediate vicinity.

Immature larvae of *H. miskini* and *P. eone iole* were on and near young juvenile leaves especially between leaves that overlapped or in other convenient shelters nearby, including fallen leaves trapped within the immediate foliage. Final instar larvae and pupae of both species were together in situations that offered more shelter, including curled leaves of the food plant or adjacent foliage, hollow stems of adjacent shrubs and under debris at the base of the food plant. The hollowed out stems of adjacent shrubs left by larvae of *Aenetus* sp. (Hepialidae) were particularly favoured.

Near Atherton, Queensland, *H. miskini* has also been found breeding in communal association with *P. eone iole*, on the food plant *Smilax australis*. This locality is one of a more open habitat, with eucalypt species intermixed with numerous rainforest trees. *Smilax* vines are a significant composition of the understorey growth.

At this locality, immature larvae of *P. eone iole* have been observed to feed openly on juvenile foliage of *S. australis* during the day, with numerous ants (*Iridomyrmex gilberti*) in attendance. Mature larvae and pupae of *P. eone iole* sheltered together with larvae and pupae of *H. miskini* in situations that offered convenient shelter, some situations being rolled bark, under bark, borer holes, rolled leaves, or between overlapping leaves. A few final instar larvae and pupae of *P. cephenes* have also been found together with larvae and pupae of *H. miskini* in pieces of rolled bark.

### *Hypochrysops apollo apollo* Miskin

A search of *Myrmecodia* plants in the immediate vicinity of Cooktown during May, 1982, revealed several first and second instar larvae and numerous emerged pupae. Comparison of the emerged pupal cases with those of specimens bred from the Ingham district (author's collection), confirmed their identification. *H. apollo apollo* has previously not been recorded north of Cairns, while *H. apollo phoebus* (Waterhouse) is recorded from Cape York to the Claudie River (Common and Waterhouse 1981).

A simple and reliable guide to the location of final instar larvae and pupae of *H. apollo* is the exit hole made by the larva. This hole serves as a means for ejecting frass and allows free movement for the larva from its internal cavity to the external plant. I have seen larvae feeding on the leaves of the *Myrmecodia* plant as well as on the internal tissue both near Ingham and at Iron Range. The leaves are "skeletonised" in a typical lycaenid larval feeding manner. Larvae of early instars also adopt this feeding habit but the exit hole is not as obvious as that of final instar larvae. Pupation always takes place within the internal cavity created by the larva, and emergence is executed through the exit hole.

*Ogyris iphis iphis* Waterhouse and Lyell

Numerous males of this species have been collected on a hilltop 3 km north of the Palmer River crossing, Cooktown road, during October, 1982, and November, 1983. A series of specimens has also been collected from Pinnacle Mt, 12 km SW of Dimbulah, on the western Atherton Tablelands, during all months from September to April. Larvae were also found feeding on *Amyema miquellii* (Loranthaceae) growing on a eucalypt near the base of Pinnacle Mt. These records confirm the occurrence of *O. iphis* considerably to the north of the Kuranda/Mareeba district, as well as its occurrence further to the west of its previously known range.

*Acrodipsas hirtipes* Sands

Four males of this species were taken by G. Wood and the author on a hilltop 3 km north of the Palmer River crossing, Cooktown road, on 6 October, 1982. On a subsequent visit on 26-27 November, 1983, I took three females and numerous males. These records extend the known distribution some 350 km south of the Coen district, the former most southern known locality.

Comparison of the Palmer River specimens with a lengthy series of specimens I had taken on Mt. White, Coen, during mid November, 1978, and September/October, 1982, showed close similarity with no discernable differences.

*Acrodipsas brisbanensis* (Miskin)

A lengthy series of this species has been collected from Pinnacle Mt, 12 km SW of Dimbulah, Queensland, from September to April during 1982 and 1983, and from a hilltop 8 km E of Mt. Garnet, Queensland, during October, 1983. This species has recently been recorded from the Paluma district (Valentine and Johnson 1982). The extent of the blue coloration on the upper surface of females is quite pronounced. Comparison of these specimens with a series of specimens I had taken from Toowoomba and from near Esk, southern Queensland, shows close similarity. At Toowoomba, *A. brisbanensis* and *A. cuprea* (Sands) fly on the same hilltop.

## Acknowledgements

Thanks are extended to Max Moulds for constructive criticism of the manuscript and to G. Wood for permission to refer to his unpublished records.

## References

- Common, I. F. B. and Waterhouse, D. F., 1981. *Butterflies of Australia*, Second edition. Angus and Robertson, Sydney.
- Johnson, S. J. and Valentine, P. S., 1983. Notes on the biology and morphology of *Hesperilla sarnia* Atkins (Lepidoptera: HesperIIDae) *Aust. ent. Mag.* 10(1): 6-8.
- Valentine, P. S. and Johnson, S. J., 1982. New records of Lycaenidae and HesperIIDae (Lepidoptera) from northern Queensland. *Aust. ent. Mag.* 9(1): 1-3.
- Wood, G. A., 1984. The life history of *Chaetocneme porphyropis* (Meyrick and Lower) (Lepidoptera: HesperIIDae: Pyrginae). *Aust. ent. Mag.* 11(1): 11-12.